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KENTUCKY AUTISM TRAINING CENTER

Instructional Practices for Students with Autism

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The mission of the Kentucky Autism Training Center is to strengthen our state's systems of support for persons affected by autism by bridging research to practice and by providing training and resources to families and professionals. KATC is committed to improving the quality of life for those affected by ASD.

http://louisville.edu/education/kyautismtraining/

KATC Resources

- KYAUTISM Listserv
- Informative Website
- Information for Families
- Amanda L. King Resource Library
- ASD Provider Link
- Information on Upcoming training Opportunities

http://louisville.edu/education/kyautismtraining/

THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON
AUTISM SPECTRUM DISORDERS

The NPDC has identified 27 Evidence-Based Practices

- Evidence-Based Practice Briefs
  - http://autismpdc.fpg.unc.edu/content/briefs

  - http://afirm.fpg.unc.edu/afirm-modules

- AIM – Autism Internet Modules & Affirm Modules
  - www.autisminternetmodules.org

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What are Evidenced Based Practice for Children with Autism?

Evidence-Based Practice (EBP)

- A practice that is supported by multiple high-quality research studies

Why are EBPs important?

- Ensure we have the sharpest tools at our disposal
- We have a rationale for selecting intervention
- We can avoid the pitfalls of fad interventions

Matrix of Evidence-based Practices by Outcome and Age

Matrix table with columns grouped by outcome (Social, Communication, Joint Attention, Behavior, School-Readiness, Play, Cognitive, Motor, Adaptive, Vocational, Mental, Academic), each subdivided by age group (0-5, 6-14, 15-22). Rows list each Evidence-based Practice. Colored cells indicate applicable practices by outcome and age.

Evidence-based Practices (EBP) listed:
- Antecedent-based Interventions (ABI)
- Cognitive Behavioral Intervention (CBI)
- Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O)
- Discrete Trial Training (DTT)
- Exercise (ECE)
- Extinction (EXT)
- Functional Behavior Assessment (FBA)
- Functional Communication Training (FCT)
- Modeling (MD)
- Naturalistic Intervention (NI)
- Parent-implemented Interventions (PII)
- Peer-mediated Instruction and Intervention (PMII)
- Picture Exchange Communication System (PECS)
- Pivotal Response Training (PRT)
- Prompting (PP)
- Reinforcement (R+)
- Response Interruption/Redirection (RIR)
- Scripting (SC)
- Self-management (SM)
- Social Narratives (SN)
- Social Skills Training (SST)
- Structured Play Group (SPG)
- Task Analysis (TA)
- Technology-aided Instruction and Intervention (TAII)
- Time Delay (TD)
- Video Modeling (VM)
- Visual Support (VS)

What is Autism?

Autism is a complex developmental disability that has a neurological basis that causes impairments in social interactions, communication, and the presence of unusual behaviors and interests.

ON THE SPECTRUM

Asperger's Syndrome

Autism

Childhood disintegrative disorder

Pervasive Developmental Disorder, Not Otherwise Specified (PDD-NOS)

Autism is an umbrella term for a wide range of diagnosis and people. Those who have an Autism Spectrum Disorder, could be diagnosed with one of four conditions. The term spectrum is used because people with ASD can show drastically varied signs, symptoms and levels of ability.

Source: National Institute of Mental Health

A. Persistent deficits in social communication and social interaction across multiple contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:

- Deficits in social-emotional reciprocity

- Deficits in nonverbal communicative behaviors used for social interaction

- Deficits in developing, maintaining, and understanding relationships

B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least 2 of the following:

- Stereotyped or repetitive motor movements, use of objects, or speech

- Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior

- Highly restricted, fixated interests that are abnormal in intensity or focus

- Hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment

Where do I start?

Instructional goals

- Prioritize! –Think about Core Deficits
- Think about Independence
- Talk with the family
- Set realistic goals
- Communication must always be a Priority

Reinforcement

Reinforcement

- Most important and widely applied principle of behavior analysis.

- Fundamental building block for the selection of operant behavior.

*Reinforcement theory states that reinforced behavior will be repeated, and behavior that is not reinforced is less likely to be repeated

Example of Positive Reinforcement

You Put Money in the Coke Machine. The Coke Machine Gives You the Drink You Choose!

Implementing in the Classroom!

1. Plan:

-Decide on target skills,

-Take baseline data,

-Decide on Requirements for Success!

-Identify reinforcers

Sam, A., & AFIRM Team. (2015). *Reinforcement.* Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorder, FPG Child Development Center, University of North Carolina. Retrieved from http://afirm.fpg.unc.edu/reinforcement

Reinforcement cont.

2. Use Reinforcement!

-What rate of Reinforcement?

3. Monitor

-Collect data
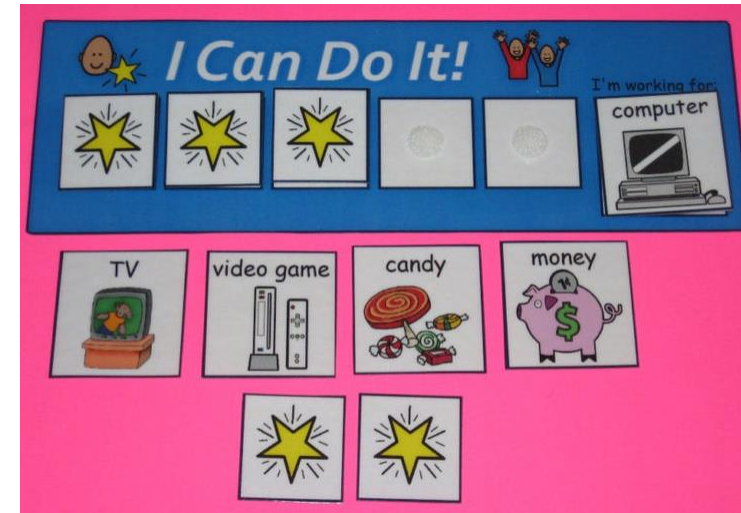
Reinforcement survey

Child's Name:_____

Favorite food:	Favorite color:
Favorite TV show:	Favorite thing to do after school:
Favorite book:	Favorite sport:
Favorite friend:	Favorite subject to learn about:
Favorite movie:	Favorite place:

Are there any triggers or other information I should know?

_____

_____

_____

_____

50 Classroom Reward Ideas
That Don't Cost Lot of Money

1. Sit at the teacher's desk.
2. Be the zookeeper and take care of the animals.
3. Have lunch with your favorite person.
4. Join another class for indoor recess.
5. Get free milk.
6. Have bread and peanut butter at snack time.
7. Have the teacher phone parents to tell them what a great kid you are.
8. Draw on the chalkboard.
9. Use the clay during free time.
10. Chew sugar free gum.
11. Be first in line.
12. Do only half an assignment.
13. Choose any class job for the week.
14. Choose the music for lunch. Bring in a tape.
15. Use colored chalk.
16. Do all the class jobs for the day.
17. Invite a visitor from outside the school.
18. Work on a mural.
19. Get a drink whenever you want.
20. Use the pencil sharpener any time.
21. Make a bulletin board.
22. Put fifteen marbles in the group reward jar.
23. No early morning work.
24. Be a helper in the room with younger children.
25. Help the custodian.
26. Write in ink for the day.
27. Invite a friend from another class into the room for lunch.
28. Use the teacher's chair.
29. Work in the lunchroom.
30. Take a class game home for the night.
31. Move your desk to a chosen location.
32. Keep an animal on your desk--stuffed or not stuffed.
33. No homework pass.
34. Lunch with the teacher.
35. Operate the projector.
36. Use the couch or beanbag chair for the day.
37. Go to another class for lunch.
38. Use the typewriter.
39. Be the first to eat.
40. Use the tape recorder and tape a story.
41. Have a special sharing time to teach something to the class, set up a display, etc.
42. Be leader of a class game.
43. Extra center time or extra recess.
44. Read to a younger child.
45. Read to someone else.
46. Get to use special stickers to decorate their paper.
47. Use classroom puppet.
48. Choose an outside activity.
49. Use stamps and ink.
50. Perform special handshake with teacher and friends.

Evidenced Based Practices for Instruction of Children/Teens
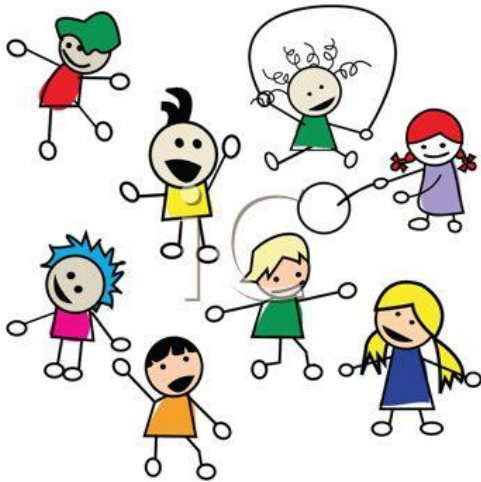
Prompts

Prompts

- A stimulus that is added, that helps a person make a desired response.

Examples include:

- Verbal Prompt
- Gestural Prompt
- Physical Prompt
- Imitative or Modeling Prompt

- Visual Prompt
- Positional Prompt

Types of Prompts
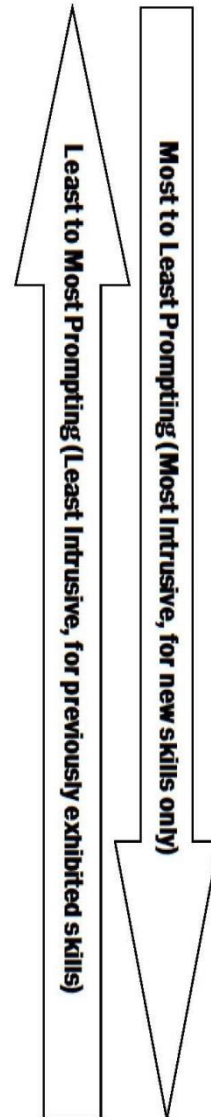
Full Physical	The teacher uses hand over hand guidance to make sure the student demonstrates the correct response.	Ex. Hand over hand washing hands
Partial Physical	The teacher uses only partial physical assistance so that the student demonstrates the correct response.	Ex. Tapping elbow to raise hand.
Full Model	The teacher fully demonstrates the correct response.	Ex. Showing where to get the towels.
Partial Model	The teacher only demonstrates part of the correct response.	Ex. Walking in the direction of where to find the door.
Full Verbal Model	The teacher clearly communicates what the desired response is step by step.	Ex. Explaining how to use the locker
Partial Verbal Model	The teacher communicates only part of the desired response.	Ex. Touching on key details of directions to the office
Gesture	The teacher makes some kind of gesture to prompt the desired response.	Ex. Nodding head toward the pencil sharpener
Positional	The teacher places an item/object in a specific position/place that prompts the correct response.	Ex. Putting the correct choice of two closer to the student.
Visual	An arrangement of the physical environment that prompts the correct response.	Ex. A visual reminder to raise a hand to ask questions.

Least to Most Prompting (Least Intrusive, for previously exhibited skills)

Most to Least Prompting (Most Intrusive, for new skills only)

www.patrickmulick.com

Prompt Fading

- The overall goal is for individuals to not need prompts.

- Fade prompts quickly, so that individuals do not become dependent on prompts

- Fading procedures involve gradually fading out prompts to less intrusive prompts until prompts are no longer needed.

Task Analysis

- The process of breaking down a complex skill or series of behaviors into smaller, teachable units.

- Purpose is to determine the sequence of behaviors that are necessary and sufficient to complete a given task.

Task Analysis

- The sequence of behaviors that one person might have to perform may not be identical to what another person needs to achieve the same outcome.

- The task analysis should be individualized according to age, skill level and prior experience of the person in question.

Use Task Analysis to Teach Functional Routines!
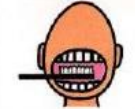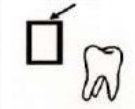
Functional routines are events that occur over & over

Example: turning in homework, brushing teeth, going thru lunch line, getting ready for school, lining up at the end of recess

Developing a Task Analysis

- Steps are developed after observation

- Ask and expert or someone skilled at task

- Perform task yourself and determine steps

- http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/TaskAnalyis_Steps_0.pdf

Objective:

Criteria:

Date:																														
Initials:																														
Sessions:																														

Key: ✓= independent   ●=
       1= 1 verbal cue   O=
       2= 2 verbal cues   *=
       3= more than 2 verbal cues

Pivotal Response Training

Based on the belief that through ABA children with Autism can be taught critical behaviors that affect their ability to communicate and socialize with peers.

PRT

- **Responding to multiple cues**
- **Motivation**
- **Self-management**
- **Self-initiations and maintaining interactions**
- **Joint attention**
- **Functional communication skills**

PRT

- **Responding to multiple cues: being able to respond to complex cues (recognizing that a toy is more than just a car, there are many different types)**

- **Motivation: helps to increase desire to interact with environment**

- **Self-management: teaching student to monitor both the good & disruptive behaviors**

PRT

- **Self-initiation and maintaining interactions: teaching how to greet others, using conversation encouragers, asking questions and complementing others**

- **Joint Attention: shared focus of an object**

- **Functional communication skills: being able to respond to greetings, making comments and asking questions**
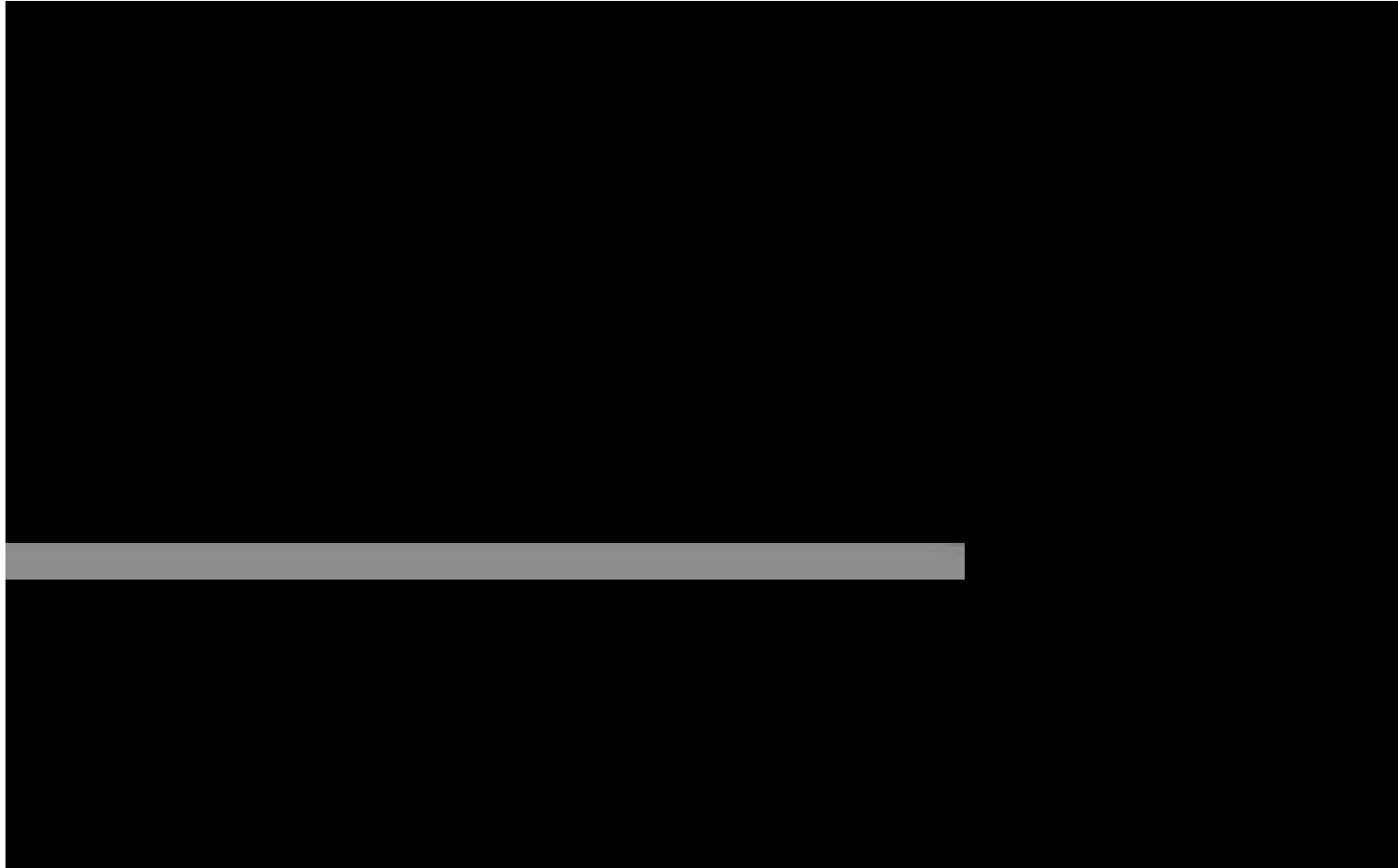
Imitation

Imitation serves 2 distinct function

1. Learning : Acquiring New Skills & Knowledge

2. Social: Engage in Social & Emotional Exchanges with Others

Imitation

Self Management

Where do we Start

Self Management

- Discriminate between appropriate and inappropriate behavior

- To accurately monitor and record their own behaviors, and

- To reward themselves for appropriate behavior or use of skill.

You Must Teach Visual Supports!

What are Visual Supports??
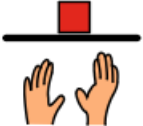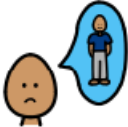
Things that we see that enhance the communication process.

Why are visual supports important?

- Give the student/child time to focus

- Time to work out meaning

- Child can refer back to visual

- Makes Life Predictable

- Encourage consistency in procedures, expectations, and routines across all people involved with the child

Visual Supports!

Visual Supports!

Visual Supports!

Other Visual Types of Visuals Supports!!

This child never sits down. How am I supposed to teach them anything?

What is Structured Work Systems?

Purposeful Organization of learning Materials to assist learners with Autism in answering the following questions

A Structured Work System Answers the Following Questions:

1. What am I supposed to do?

Materials placed in baskets

2. How much am I supposed to do?

How many baskets are there

Use of Mini Schedule

A Structured Work System Answers the Following Questions:

3. How will I know I am finished?

All the baskets are gone

No icons are left on Mini Schedule

4. What do I next?

Last item should refer child back to schedule or choice board

Potential Benefits

- Systematic approach to tasks/work

- Builds independence

- Generalizes skills to other environments

- Extends time on task/independent work

- Maintain mastered skills

Example of Physical Design of a Student "Work" Area

Minimal Distractions (but make sure all students visible at all times)

Bins/Containers

Mini-matching schedule

Left-to-Right Concept

Finished Basket
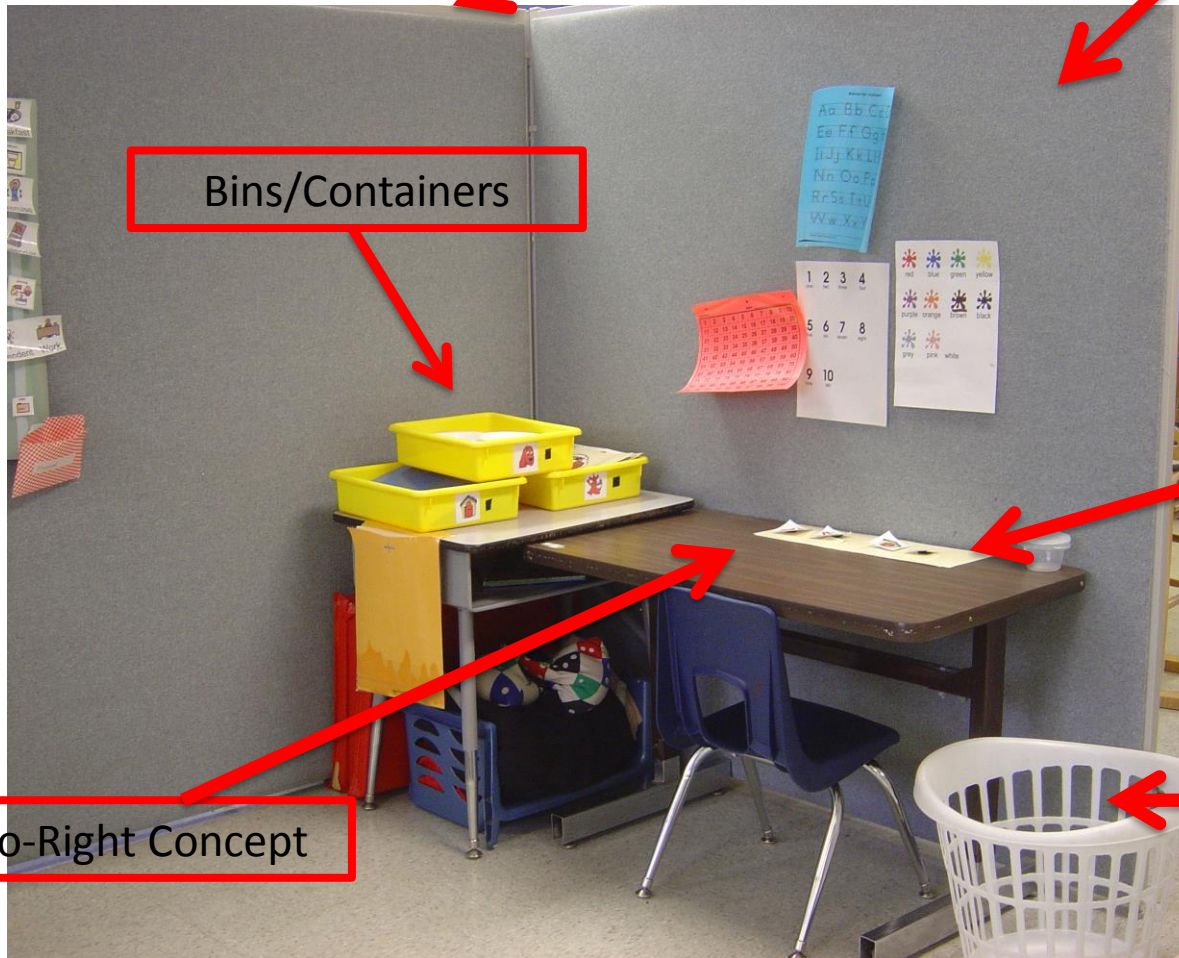
Choosing the Right Work System

Structured Work System Examples

Choosing the Right Work System Cont.

"Finished" Examples

Social Narratives

Social Narratives

* Social narratives are interventions that describe social situations in some detail by highlighting relevant cues and offering examples of appropriate responding.

*They are aimed at helping learners adjust to changes in routine and adapt their behaviors based on the social and physical cues of a situation, or to teach specific social skills or behaviors.

Social Narratives

- Social narratives are individualized according to learner needs and typically are quite short, perhaps including pictures or other visual aides.

- Sentence types that are often used when constructing social narratives include descriptive, directive, perspective, affirmative, control, and cooperative.

When do we use them?

◆ **Social Narratives can be used in situations that are new or are difficult for the learner.**

◆ **Can be used to teach behaviors that are not in the learners repertoire.**

When do we use them?

◆ **Examples where social narratives may be used include:**

> **Going to the bathroom**
>
> **Transitioning**
>
> **Visiting the dentist/doctor**
>
> **Going on vacation**
>
> **Remaining quiet in class**

Social Narratives

◆ **Social narratives are individualized according to learner needs and typically are quite short, perhaps including pictures or other visual aides.**

Social Narratives

◆ **The story remains short, so that the story can be used throughout the day and will keep the learners attention.**

Social Narratives

◆ **Sentence types that are often used when constructing social narratives include descriptive, directive, perspective, affirmative, control, and cooperative.**

Sentences in social narratives

◆**Descriptive-** Answers the 'wh' questions *where* does the situation occur, *who* is it with, *what* happens and *why*?

◆**Perspective-**Refers to the opinions, feelings, ideas, beliefs or physical/mental well being of others.

Sentences in social narratives

◆**Directive**- *I will try to cover my mouth when I cough.*

◆**Affirmative-** be used to emphasize the importance of the message or to provide reassurance to the person.

Sentences in social narratives

◆**Cooperative-** Sentences which identify how others may be of assistance to the person

◆**Control-** Statements written by the person with autism to provide personal meaning

At My Birthday Party

At my birthday party I will get presents! I will tell my friends thank you for the present. If I get a present that I don't like or a present that I already have it is ok. I can tell my mom quietly and she will help me exchange it for something that I like later. My birthday party will still be fun. I will still tell my friend thanks.

Sponge Bob gets upset.

When Sponge Bob gets upset. He takes a deep

breath or asks for a break. When I get upset

I will take 3 deep breaths or ask for a break just

like Sponge Bob.
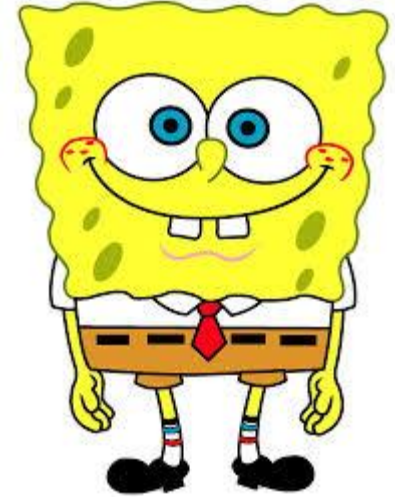
Video Modeling

Video Modeling

- Video student doing the target behavior and (if possible) receiving reinforcement for doing the behavior

  ✓ Video may capture student only briefly demonstrating behavior

  ✓ Video can be manipulated to have target student as model

- Student watches video prior to being expected to complete target behavior

Video Modeling

- Video Self-Modeling

- Video Peer Modeling/Other-As-Model

- Point-of-View Modeling

- Video Prompting

Video Modeling

- Video created from videographers perspective
  - ✓ Skills that perspective may make an impact
  - ✓ Potential Examples:
    - o Ordering at a fast food restaurant
    - o Tying shoes
    - o Cooking
- Student watches video prior to being expected to complete target behavior

Hand washing

Play Skills

Video Modeling

- Using an "other-as-model" video clips are created for each discrete step of the chained task

- Clips are used as a prompt for step completion

- Think of this type of prompt fitting within System-of-Least as its own prompt level

Helpful Websites

http://www.victoriesnautism.com/

http://connectability.ca/visuals-engine/

Questions?

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